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MAR 22 '82Texas Department of Water Resources
INTEROFFICE MEMORANDUMTO : Gary Schroeder, Chief, Solid Waste and Spill
Response

DATE: March 12, 1982

THRU :

FROM : Sandra A. Parker, Field Representative, District 7

SUBJECT: Marshall Road site-Crosby-Harris County
^{Dump}

TXD 980 745616

Introduction:

The following information is submitted as part of a continuing investigation of the Marshall Road dump, which is located at the intersection of Parish and Marshall Roads in Crosby, Texas. The site was used as a chemical disposal site from June 1, 1971 until October or November of that year. The site is actually two dumpsites; one near the corner of Parish and Marshall Roads (site #1), the other (site #2) located in a pasture approximately 1/8 mile southeast of site #1. (See attached plot map for locations.)

1. On November 6, 1981, samples were collected from six ground water wells located on Runneburg Rd. (see attached map). The wells are used for domestic purposes. Lab results indicate that no priority pollutants or pesticides were detected in the samples. (Results attached.) It must be noted that the volumes submitted for testing were insufficient for maximum sensitivity.

Since the initial sampling, two additional wells have been sampled. One was collected from the (b) (6) residence, (b) (6) (b) (6) (the former residence of (b) (6)); another sample was collected from the (b) (6) residence, (b) (6). The (b) (6) have a shallow well drilled to a depth of approximately 75 feet. (b) (6) had a new well drilled when he bought the house from the (b) (6). He stated that the well was about 375 to 400 feet. Lab results are pending.

2. On November 5, 1981, samples were collected from both #1 and #2 disposal sites. Seven open drums at site #1 were sampled. One soil sample was collected at site #2 from an area that was once a pit used for the disposal and subsequent burning of chemical wastes. The pit has been filled in but supports no vegetation. Lab results are listed as follows:

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Site #1 Open drum samples.

Drum 1 - A sample from this drum had previously been collected by Mr. Tom Kearns. Delays in analysis indicated the need for re-sampling.

This sample did not chromatograph; no major peaks were detected; no priority pollutants detected.

Drum 1 - Major portion of sample did not chromatograph. No acid or base/neutral extractable priority pollutants were detected.

Large peaks appeared to be aliphatic amines; (molecular weight range in 280 +).

Drum 2 - Material would not chromatograph; no priority pollutants detected. Unable to identify by GC/MS.

Drum 3 - Mixture of alkyl-benzenes Naphthalenes, C₁-Naphthalenes; C₂-Naphthalenes, C₃-Naphthalenes. Trace anthracene/phenanthrene; other organic present.

Drum B - No acid or base/neutral extractable priority pollutants detected. Sample did not chromatograph.

Drum C - Did not chromatograph; composition undetermined.

Drum D - Analysis by GC/MS (MeCl₂ solution) Naphthalene, C₄-Naphthalenes, Benzene, 1, 1' - Ethylidene bis-Diethyl biphenyl
C₄ - biphenyl

Other benzene based compounds present.

Site #2 Pit Area - (See plot map for locations)

Soil Sample BB - By GC/MS, no acid extractable priority pollutants detected. By GC/MS (Base/neutral extract).

Trace of weathered hydrocarbons.

Phthalic acid present.

Other organics present; unable to positively identify. Mass spectra implies probably alkyl-benzene structure; possible high molecular weight. Alkyl Phenols present.

Water Sample AA - Sample was collected after a moderately heavy rain from the drainage ditch on the south side of Marshall Road and in front of site #1.

Runoff from the site enters this ditch which eventually flows to Cedar Bayou. No priority pollutants were detected; however, it should be noted that the sample volume was insufficient to insure maximum testing sensitivity, and re-sampling may be necessary.

3. On December 3 and 4, 1981, responding to a request from this agency, the Velsicol Chemical Corporation contracted with Chemical Waste Management of Port Arthur, for the removal of drummed pesticide contaminated filters that had originated from Velsicol's plant at Bayport. The drummed material was located along a drainage ditch at site #2.

On December 7, 1981, after the clean-up, one water sample was collected after an over night rain from the drainage ditch, and one soil sample was collected from the area where the drummed filters had been. Results are tabulated as follows:

Site #2

Soil sample after filter and drum removal.

B/N Extraction

1-methoxy-4 nitro benzene
Methyl parathion: 4.3%
Unknown phthalate

Acid Extraction

p-nitro phenol
Methyl parathion

Water sample from drainage ditch

No acid or base/neutral extractable priority pollutants.
No parathion or parathion degradation products detected.

Air Sampling

4. The Texas Air Control Board visited the disposal area on December 9, 1981. Conditions were clear, warm and variable winds were noted. Air samples were collected at both sites.

Faint chemical and paint thinner odors were detected at site #1. The wind direction was out of the northwest. Two samples were collected; one upwind and one downwind.

At site #2, where the drums containing the filters had been, strong sulfur odors were detected. The wind direction had changed and was out of the northeast. Two downwind and one upwind samples were collected. Analyses were performed by the TACB.

Results from the air sampling at both sites are as follows:

Site #1

	Benzene ug/M ³	Toluene ug/M ³	Ethyl Benzene ug/M ³	Total Xylene ug/M ³
Downwind	ND (<30)	5	9	30
Upwind	ND (<30)	ND (<5)	ND (<5)	ND (<5)

Site #2

Downwind 1 No compounds detected in this sample

Downwind 2 " " " " "

Upwind 1 " " " " "

5. The Texas Department of Health also conducted a radiation survey on March 3, 1982. Results indicated that normal radiation background levels were detected.
6. Data was collected from information noted on the abandoned drums at site #1. With this information and information noted in a report written by Charles Browning, Harris County Pollution Control Department (obtained from the District office files), attempts were made to contact the generators of the waste.

The following companies have been contacted and their relationship to the wastes are noted as follows:

- A. On November 19, 1981, representatives from Exxon visited the site. They were willing to claim responsibility for two 10-gallon Esso drums.
- B. On November 20, 1981, a representative from Velsicol Chemical Corporation visited the site and later claimed responsibility for the methyl parathion contaminated filters. As previously mentioned, this material was picked up on December 3 and 4, 1981. Results of soil sampling, however, indicate that methyl parathion is still present in high concentrations.

- C. On December 28, 1981, Mary Spalding, Environmental Coordinator, Universal Oil Products, was contacted to determine the origin, content and destination of two drums, one labeled: Universal Oil Products Co. PNSP Lot No. 3152-35. Ms. Spalding traced the drums and determined that they had originated from UOP's Shreveport Manufacturing Process Division. The drum, #35, was sent to Velsicol Chemical Corporation on May 5, 1969 and the catalyst it contained was analyzed to be a yellow crystalline material para-nitrosodiumphenolate (PNSP). The catalyst was used in the production of methyl parathion. Samples from the drum (previously labeled as Drum #2) were analyzed by UOP.

In a letter dated March 5, 1982, Ms. Spalding stated that the results and their analyses indicated that neither PNSP nor any phenolic residues were detected. The solid portion of the sample was found to contain a styrene and isobutylene polymer. The liquid portion contained water and acetone. (See attached letter.)

- D. On December 22, 1981, Mr. Thomas Ruland, Manager, Production Department from Cook Paint and Varnish was contacted. (The company name appeared in Charles Browning's report.) Mr. Ruland claimed no responsibility nor any knowledge of any material deposited at either site.
- E. On March 5, 1982, Mr. Mike Baker (Chemist) from Nutro Products was contacted concerning two drums noted at site #1 with the following labeling; Batch 5 Nutro, and Nutro N16 corrosion inh. They are presently checking their records to try and track down contents of the drums.
7. Attempts have also been made to locate Mr. Albert Hines, the alleged transporter of the wastes. Mr. Hines now resides in the TDC's Huntsville Unit Prison. When contacted at the prison he stated that he had leased one of his trucks to a Mr. Earl Garwin, for the purpose of hauling bricks. Garwin then got into the waste hauling business. Mr. Hines also became involved in hauling chemical wastes, but stored the drums at a warehouse on #12 Daly Place in Houston. Mr. Hines had hoped to manufacture weed killer from the waste materials. Mr. Hines stated that he had hauled waste for Enco, Gulf Oil, Liberty Waste Co., Cook Paint and Varnish, Humble Oil and Tintex.

Recent attempts to locate Mr. Earl Garwin have failed, but the staff plans to continue its effort in this venture.

8. As previously reported, the possibility of a high incidence of cancer may exist among the original residents of Runneburg Road which is located 1/4 mile to 1/2 mile northwest of the disposal site. Recently, the District staff has learned that (b) (6) Director of Nursing at the Tidelands Hospital, and former resident of Runneburg Road, has contracted cancer of the colon. According to (b) (6), many of the families that moved to Runneburg Road in the 1960's, have apparently contracted cancer. However, no direct link has been established between the location and existence of the disposal site and the possibility of an abnormal cancer rate in the neighborhood. Prior to the District investigation, none of the households having cancer were even aware of the disposal site.

Recommendations:

1. The District staff reiterates its request that the Austin staff seek assistance from appropriate groups to assist in determining any correlations between the waste constituents and the various types of cancer that exist in the adjoining neighborhood.
2. That the Austin staff investigate the possibility of using funds allocated through Section 311 of the Federal Clean Water Act to have all the waste materials removed from the area.
3. The District office will continue to search for the generators and transporter responsible for the site.

Signed Landra A. Parker

Merton Colton

WATER OFF - 1 AM

MARSHALL RD

SITE 1

DELU
PAPEL
WASTE



DISPOSAL
AREA
~300
CONTAINERS



(b) (6)

GATES



(b) (6)



MONEY

THOMPSON
RESIDENCE

SITE 2

DISPOSAL
AREA

SOIL SAMPLE BB



AREA

SOIL

SAMPLE

AFTER DRUM REMOVAL

~40

CONTAINERS



WATER

SAMPLE

CEDAR

BAYOU



SAMPLE AREAS

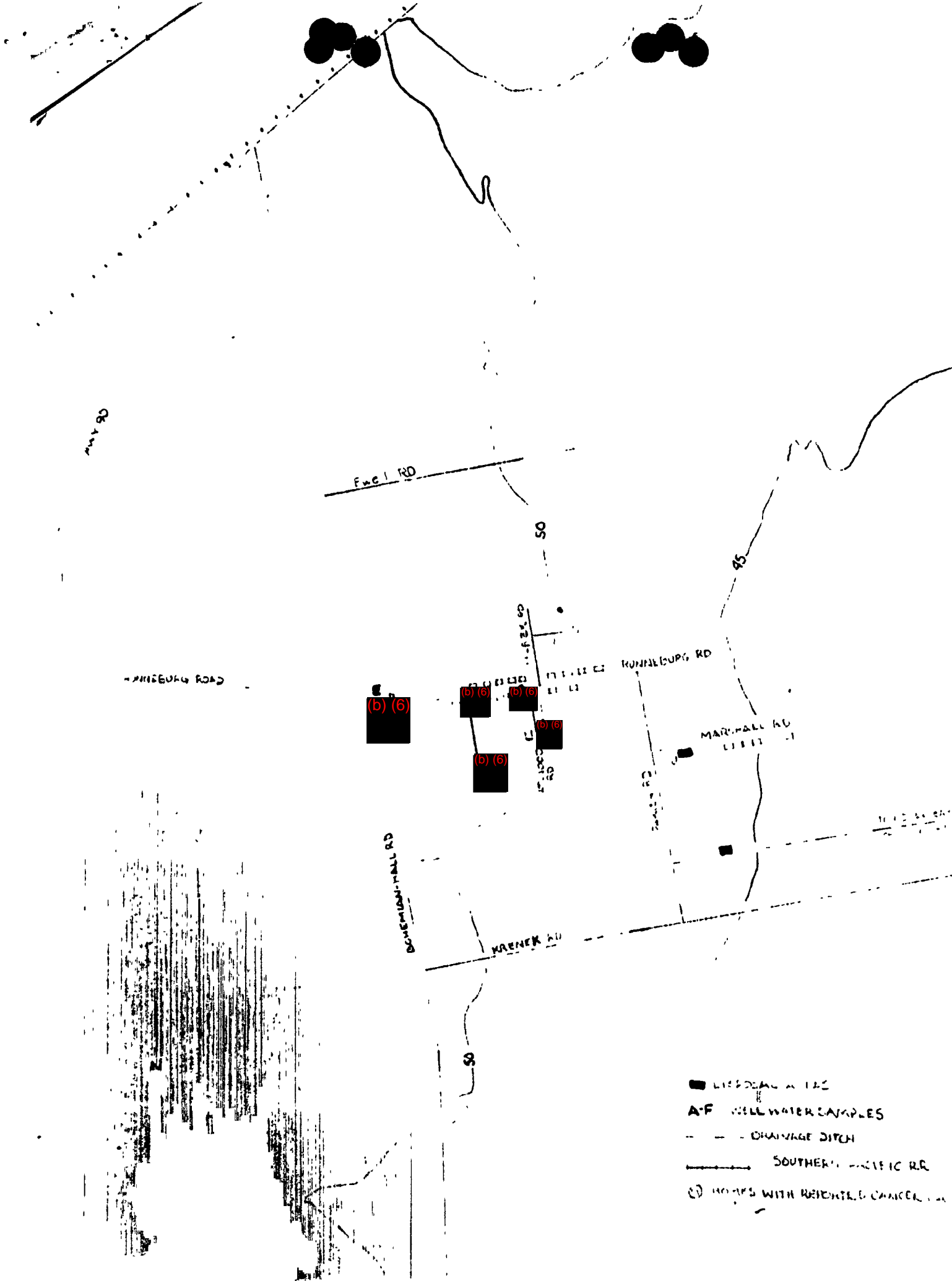
DRAINAGE

-x-x-x-

DITCH

FENCE

LINE



- LIFE DEATH IN THE
- A-F WELL WATER SAMPLES
- - - DRAINAGE DITCH
- +—+— SOUTHERN PACIFIC RR
- HOMES WITH REPORTED CANCER